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Serial No. 10/729,347  
Wakefield, et al.  
Filed December 5, 2003

NOV 18 2006

**Response to Office Action**  
Examiner: Mark A. Radke  
Group Art Unit: 2165

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**INVENTORS:** Todd D. Wakefield and David L. Bean

**TITLE:** Methods and Systems for Providing A Service for Producing  
Structured Data Elements From Free Text Sources

**FILING DATE:** December 5, 2003      **EXAMINER NAME:** Sathyanaraya R. Pannala

**SERIAL NO.:** 10/729,347      **GROUP ART UNIT:** 2164

**DOCKET:** 5142 P

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Amendment and Claims Listing**

Please amend the claims as follows:

Claim 1 (currently amended) 1. A system for providing a service to identify and structure free text databases, comprising:  
a processing element;  
one or more data access ports, said ports providing access to data by said processing element;  
a set of one or more input devices readable by said processing element;  
a storage device, said storage device containing instructions executable by said processing element to perform the functions of:

- (i) reading an access reference through said input device set, the access reference referencing a customer's source of unstructured data, the unstructured data including free text;
- (ii) accessing the source of unstructured data;
- (iii) identifying text records within the free text;
- (iv) linguistically parsing the identified text records;
- (v) identifying thematic roles and relationships within the parsed text records, ~~said identifying producing attribute extractions, each of said attribute extractions containing attribute information of the~~

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derived source text ;

(v) applying caseframes to the linguistic parse and thematic identifications producing attribute extractions, ~~said applying caseframes each of said attribute extractions containing attribute information of the derived source text a filtered set of attribute extractions~~; and

(vi) producing a structured data element stored on computer-readable storage media containing the filtered set of extractions.

Claim 2 (original) 2. A system according to claim 33 ~~claim 1~~, wherein said instructions are further executable to perform the function of identifying domains of the attribute extractions.

Claim 3 (original) 3. A system according to claim 2, wherein said instructions are further executable to perform the function of the assignment of domain roles.

Claim 4 (currently amended) 4. A system according to claim 3, wherein said instructions are further executable to perform the function of producing domain relation types.

Claim 5 (original) 5. A system according to claim 4, wherein said instructions are further executable to perform the function of coalescing the produced relation types.

Claim 6 (original) 6. A system according to claim 1, wherein said instructions are further executable to perform the function of creating a new database containing the structured data element produced in said producing.

Claim 7 (original) 7. A system according to claim 1, wherein the instructions are further executable to produce a new relational database containing the structured data element produced in said producing a structured data element.

Claim 8 (original) 8. A system according to claim 1, wherein said instructions are further executable to perform the function of producing a file containing the structured data element produced in said producing a structured data element.

Claim 9 (original) 9. A system according to claim 8, wherein the instructions are further executable to

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produce a file having a format containing the structured data element selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 10 (original) 10. A system according to claim 1, wherein the structured data element produced by the performance of said producing includes reference information to the original free text for construed data.

Claim 11 (original) 11. A system according to claim 1, wherein the instructions are further executable to construct a library containing extracted attributes.

Claim 12 (original) 12. A system according to claim 1, wherein the instructions are further executable to construct a library containing extracted relational facts.

Claim 13 (original) 13. A system according to claim 1, wherein said instructions are further executable to perform the function of combining like relation types.

Claim 14 (original) 14. A system according to claim 1, wherein said instructions are further executable to perform the function of combining like attributes.

Claim 15 (currently amended) 15. A system according to claim 1, wherein said instructions are further executable to perform the function of coalescing attribute extractions ~~the identified attributes~~.

Claim 16 (original) 16. A system according to claim 1, wherein said instructions are further executable to perform the function of coalescing identified relation types.

Claim 17 (currently amended) 17. A method for providing a service to identify and structure free text databases, comprising the steps of:

reading an access reference through said input device set, the access reference referencing a customer's source of unstructured data, the unstructured data including free text;

accessing the source of unstructured data; identifying text records within the free text;

linguistically parsing the identified text records; thematic identifying roles and relationships within the parsed text records, ~~said identifying producing attribute extractions, each of said attribute extractions~~

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~~containing attribute information of the derived text source;~~

applying caseframes to the parse and thematic identification, said applying caseframes producing attribute extractions;

said identifying producing attribute extractions, each of said attribute extractions containing attribute information of the derived source text; and

producing a structured data element stored on computer-readable storage media containing the filtered set of extractions.

Claim 18 (original) 18. A method according to claim 17, further comprising the step of identifying domains of the attribute extractions.

Claim 19 (original) 19. A system according to claim 18, further comprising the step of assigning domain roles.

Claim 20 (original) 20. A system according to claim 19, further comprising the step of producing relation types.

Claim 21 (original) 21. A system according to claim 20, further comprising the step of coalescing the produced relation types.

Claim 22 (original) 22. A system according to claim 18, further comprising the step of creating a new database containing the structured data element produced in said producing.

Claim 23 (original) 23. A system according to claim 18, further comprising the step of producing a new relational database containing the structured data element produced in said producing a structured data element.

Claim 24 (original) 24. A system according to claim 18, further comprising the step of producing a file containing the structured data element produced in said producing a structured data element.

Claim 25 (original) 25. A system according to claim 24, further comprising the step of producing a file

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having a format containing the structured data element selected from the group of XML, character separated values, spreadsheet formats and file-based database structures.

Claim 25 (original) 26. A system according to claim 18, wherein the structured data element produced by the performance of said producing includes reference information to the original free text for construed data.

Claim 27 (original) 27. A system according to claim 18, further comprising the step of constructing a library containing extracted attributes.

Claim 28 (original) 28. A system according to claim 18, further comprising the step of constructing a library containing extracted relational facts.

Claim 29 (original) 29. A system according to claim 19, further comprising the step of combining like relation types.

Claim 30 (original) 30. A system according to claim 18, further comprising the step of combining like attributes.

Claim 31 (currently amended) 31. A system according to claim 18, further comprising the step of coalescing said attribute extractions ~~the identified attributes~~.

Claim 32 (original) 32. A system according to claim 18, further comprising the step of coalescing identified relation types.

Claim 33 (new) 33. A system according to claim 1, wherein said instructions are further executable to perform the function of filtering said attribute extractions to produce a filtered set of attribute extractions.

Claim 34 (amended) 34. A system according to claim 1, wherein said instructions are further executable to perform the function of coalescing identified relational facts.

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Claim 35 (new)      35.    A system according to claim 1, wherein said instructions are further executable to perform the function of filtering said attribute extractions to produce a filtered set of attribute extractions.

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Respectfully submitted this 18th day of November, 2006.



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